Central California Coast Coho ESU

Hatchery Program Assessment

Shirley Witalis

Central California Coast Coho ESU

- CCC Coho Included in the ESU
  - Don Clausen Fish Hatchery conservation program, CDFG
  - Scott Creek/Kingfisher Flats conservation program, MBSTP
  - Scott Creek Captive Broodstock program, MBSTP/SWFSC
  - Noyo River Fish Station egg-take program, CDFG
  - And other natural populations with no hatchery programs
- CCC Coho NOT Included in the ESU
  - none

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Population area (hatchery stock)	Isolated or integrated	Program type	Purpose	Production goal	Years of Program
Artificial Propagation Programs that Produce Fish Included in ESU					
Don Clausen Fish Hatchery Captive Broodstock	Integrated	Captive/rear	Conservation	adaptive	3
Monterey Bay Salmon and Trout Project	Integrated	Smolt	**Conservation**	</= 90,000	3
Noyo River Fish Station	Integrated	Smolt	**Augmentation**	N/A	50+
Scott Creek Captive Broodstock	Integrated	Captive/rear	**Conservation**	100-150	2

Viable Salmon Populations

Abundance
Productivity
Spatial Structure
Diversity

Effect on Abundance

- Three conservation programs and captive broodstocks are crucial to the recovery of natural populations in the CCC coho ESU. There has not been any program(s) effect on natural abundance as yet.

- Noyo River Fish Station program is being terminated because it has not met CDFG expectations of increasing coho salmon abundance.

Effect on Productivity

- Captive rearing programs are expected to increase the chance of fish contribution to natural productivity. Conservation programs remove fish from the natural spawning pool, but may be the lessor risk than not to attempt when the status of the ESU is “endangered.”

- Noyo River productivity is thought to be reduced despite a long-term augmentation effort, and there may be little net loss by termination of the hatchery program.

Effect on Spatial Structure

- The conservation programs are hoped to contribute to the future abundance and spatial structure of natural populations in the ESU, but they are currently unproven, as yet.

- The previous MBSTP coho program likely sustained the presence of coho salmon in the Scott River.

Effect on Diversity

- Programs are provided spawning matrices to ensure population diversity.

- Scott Creek captive broodstock program maintains the population genome and captive fish may be used in artificial propagation program at Kingfisher Flats Hatchery if fish numbers trapped for program broodstock are not adequate.

Effect of Artificial Propagation on VSP Attributes CCC Coho Salmon

Viability Criteria	BRT VSP Risk Score	Decreases Risk	Neutral or Uncertain	Increases Risk
Abundance	4.8	√		
Productivity	4.5		√	
Spatial Structure	4.7			
Diversity	3.6	√		

Recommendation: No Change to BRT's Finding

What is the biological status of the ESU in total (including hatchery stocks/populations, mixed populations, and natural populations)?

CCC coho	Biological Status for the ESU in-total		
	"in danger of extinction throughout all or a significant portion of its range"	"likely to become endangered within the foreseeable future throughout all or a significant portion of its range"	Neither "in danger of extinction…" or "likely to become endangered…"
BRT's findings for the ESU natural components	74%	26%	0%
Workshop consensus finding			